

§ 817.13

(3) Signs shall be retained and maintained until after the release of all bonds for the permit area.

(d) *Perimeter markers.* Each person who conducts underground mining activities shall clearly mark the perimeter of all areas affected by surface operations or facilities before beginning mining activities.

(e) *Buffer zone markers.* Buffer zones required by § 817.57 shall be clearly marked to prevent disturbance by surface operations and facilities.

(f) *Topsoil markers.* Where topsoil or other vegetation-supporting material is segregated and stockpiled as required under § 817.22, the stockpiled material shall be clearly marked.

[44 FR 15422, Mar. 13, 1979, as amended at 48 FR 9809, Mar. 8, 1983; 48 FR 44781, Sept. 30, 1983]

§ 817.13 Casing and sealing of exposed underground openings: General requirements.

Each exploration hole, other drillhole or borehole, shaft, well, or other exposed underground opening shall be cased, lined, or otherwise managed as approved by the regulatory authority to prevent acid or other toxic drainage from entering ground and surface waters, to minimize disturbance to the prevailing hydrologic balance and to ensure the safety of people, livestock, fish and wildlife, and machinery in the permit area and adjacent area. Each exploration hole, drill hole or borehole or well that is uncovered or exposed by mining activities within the permit area shall be permanently closed, unless approved for water monitoring or otherwise managed in a manner approved by the regulatory authority. Use of a drilled hole or monitoring well as a water well must meet the provisions of § 817.41 of this part. This section does not apply to holes drilled and used for blasting, in the area affected by surface operations.

[44 FR 15422, Mar. 13, 1979, as amended at 48 FR 14822, Apr. 5, 1983; 48 FR 43992, Sept. 26, 1983]

§ 817.14 Casing and sealing of underground openings: Temporary.

(a) Each mine entry which is temporarily inactive, but has a further projected useful service under the ap-

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proved permit application, shall be protected by barricades or other covering devices, fenced, and posted with signs, to prevent access into the entry and to identify the hazardous nature of the opening. These devices shall be periodically inspected and maintained in good operating condition by the person who conducts the underground mining activities.

(b) Each exploration hole, other drill hole or borehole, shaft, well, and other exposed underground opening which has been identified in the approved permit application for use to return underground development waste, coal processing waste or water to underground workings, or to be used to monitor ground water conditions, shall be temporarily sealed until actual use.

§ 817.15 Casing and sealing of underground openings: Permanent.

When no longer needed for monitoring or other use approved by the regulatory authority upon a finding of no adverse environmental or health and safety effects, or unless approved for transfer as a water well under § 817.41, each shaft, drift, adit, tunnel, exploratory hole, entryway or other opening to the surface from underground shall be capped, sealed, backfilled, or otherwise properly managed, as required by the regulatory authority in accordance with § 817.13 and consistent with 30 CFR 75.1771. Permanent closure measures shall be designed to prevent access to the mine workings by people, livestock, fish and wildlife, machinery and to keep acid or other toxic drainage from entering ground or surface waters.

[44 FR 15422, Mar. 13, 1979, as amended at 48 FR 43992, Sept. 26, 1983]

§ 817.22 Topsoil and subsoil.

(a) *Removal.* (1)(i) All topsoil shall be removed as a separate layer from the area to be disturbed, and segregated.

(ii) Where the topsoil is of insufficient quantity or of poor quality for sustaining vegetation, the materials approved by the regulatory authority in accordance with paragraph (b) of this section shall be removed as a separate layer from the area to be disturbed, and segregated.